No. 8. Fath Sháh. Obverse. Name and titles with bar and knot. Reverse. Struck in Kashmír in year 897. There is some doubt as to the reading of the 7.

No. 9. Ibráhím Sháh. Obverse. Name and titles, with bar and knot. Reverse. All illegible, but date &c.

No. 10. Isma'il Sháh. Obverse. Name and titles, with bar and knot all in good preservation. Reverse. A complete muddle of remains of date illegible: remnants of Kashmír legible.

No. 11. Husain Sháh. Obverse. Name and titles, with bar and knot and probably remains of date. Reverse. Zarb Nuhsad wa haft wa haftád = 977 A. H. This coin is in splendid preservation.

No. 12. Muhammad Yúsuf Sháh. Obverse. Name, titles, bar and knot as usual, but titles illegible. Reverse. Nuhsad wa shash wa hashtád = 986. This coin is very little worn, but it was struck on an irregular and ill-prepared piece of copper.

I regret very much that the years of the coins are so unsatisfactory in so many instances. The names, however, afford no ground for dispute. They are all easily read, though in some cases at first sight they are not decipherable. I found I had several of Isma'íl's coins when I could read one. One's power of reading progresses as one's acquaintance with the coins increases. I have still several which up to the present I have not made out satisfactorily. These together with the coins of Nádir Sháh, a coin of Názuk Sháh (so I read it, I want others to help me read this one) and the coins of Akbar struck in Kashmír with the bar and the knot must stand over for another paper.

Observations on some Chandel Antiquities.—By V. A. SMITH, B. A., C. S., and F. C. Black, C. E.

(With six Plates.)

The careful and accurate descriptions of the Chandel remains at Khajuráho and Mahoba, published by General Cunningham, might be supposed to have exhausted the subject of which he treats, and to leave no gleanings to be picked up by amateur hands. We have, however, in the course of several years' residence in the Hamírpur District, in which Mahoba is situated, and after careful inspection of the buildings at Khajuráho, collected a few notes, which may, we venture to think, form a useful supplement to the more systematic record of the Director of the Archæological Survey.

The zamindárs of most villages in the small native state of Chhatarpur, in which Khajuráho is situated, are said to be Kurmis, Káchlús, or Bráhmans, but in Khajuráho itself we were surprised to find that Chandel Thákurs are still the zamindárs. They comprise only a few families* and claim to be bhumiyán or aboriginal, stating, however, that their ancestors came from Maniyá Garh,† which is the ancient fort of the town of Rájgarh, situated on the Ken, a few miles from Chhatarpur.

We were informed that Chandels are not found as zamíndárs in any village except Khajuráho, though scattered families exist elsewhere. The Chandel zamíndárs who are part proprietors of M. Urwára in Pargana Mahoba came from Ajnar in Pargana Jaitpur, whence they were expelled by Lodhís and Bráhmans in the time of Jagatráj Bundela (circa 1750 A. D.); and the Chandels who have a share in Mauza Kaimaha of Pargana Mahoba immigrated at a late date from Sheorájpur in the Cawnpore District.

We know of no other Chandel proprietors in the Hamírpur District, and the zamíndárs of Khajuráho may therefore claim to be the only local representatives of the ancient ruling clan who still retain an honourable position.

At Mahoba we have been told that the Chandel royal house is now represented by Jaimangal Singh of Gidhaur and by other Rájás in the vicinity of Gyá.‡

We have repeatedly made efforts to obtain specimens of the Chandel coinage, of which so few pieces have been found, but up to the present our enquiries, both at Khajuráho and elsewhere, have been unsuccessful.

The rarity of the coins of a dynasty which flourished for four centuries may perhaps be plausibly accounted for by the hypothesis that the Chandel coinage was called in by the Musalmáns.

The native official with our camp told us that coins which he spoke of as dukri (the word apparently meaning simply 'old') had been found at Khajuráho and sent into Chhatarpur, but at the latter place, when we tried to get a glimpse of them, we were put off with various excuses. These coins were stated to have borne illegible legends, and were pronounced by the local goldsmiths to consist of a mixture of silver, brass and copper.

^{*} Eleven families according to General Cunningham who mentions their existence.

[†] Maniya Deo is the tutelary goddess of the Chandels. Vide J. A. S. B., XLVI. Part I, p. 233, and Arch. Rep. VII, 44.

[‡] For a brief history of the Rájás of Gidhaur see Statistical Account of Bengal (for the Monghyr District) Vol. XV, pp. 71, 72.

We also heard that minute leaflets* of gold had been found in the fields about Khajuráho on more than one occasion. They were described as being very small, and each pierced with a hole about the size of a barley-corn.

The Political Agent at Nayágaon (Nowgong) informs us that he has never heard of the discovery of any coins at Khajuráho, but there can be little doubt that they must be found from time to time, though their discovery is naturally concealed by the finders who are afraid of being deprived of their prize.

The buildings at Khajuráho have all been noticed by General Cunningham except a small flat-roofed temple, which now forms part of the dwelling house of a zamíndár in the village. This edifice is of no special interest, and a defaced inscription on one of the pillars does not seem to be valuable.

We did not succeed in bringing to light any other new inscription. The brief pilgrim's record on one of the pillars of the Ganthai temple, which is not mentioned by General Cunningham, is noticed in our remarks on that building.

We were told that the fragment of an inscribed stone was lying in one of the zamíndár's houses, but were prevented from seeing it. So many sculptures and other objects have been carried off from Khajuráho by visitors and pilgrims that the people are now very unwilling to show anything which is likely to excite the cupidity of an antiquarian or devotee.

General Cunningham (II. 434) describes a 'magic square' cut on the right jamb of the door of the Jinanáth temple and observes—"The figure "8 is remarkable for an additional stroke on the left side, which I take to "be a mark of antiquity, as it is a near approach to the figure in my "Suhaniya numeral inscription." It is, however, perhaps worth while to note that this additional stroke is cut to a depth much less than that of the rest of the figure, and that it is scarcely discernible on the stone though clearly visible in a rubbing (Plate XIV). The other figures too of the square are almost identical with the modern forms, and the antiquity of the sculpture may well be doubted.

It is much to be regretted that the short inscription of eleven lines on the left jamb of the door of the same Jinanáth temple has not been published in facsimile and translated in full.

General Cunningham has given two abstract translations of it (Arch. Rep. II. 433 and J. A. S. B. XXIX, p. 395), and its date,† on which doubt

^{*} Particles of gold-leaf are found among the ruins of Manikyála. (Cunn. Arch. Rep. II. 170.)

[†] For a rubbing of this date, see Plate XV.

was at one time thrown, may be accepted as certainly being Samvat 1011, but the reading of the Rájá's name is still unsettled, General Cunningham being in doubt whether the initial letter is Dh or Gh; it looks quite as like Sh, and is certainly different from the ordinary Kutila form of Dh.

Not only this short inscription, but all the leading Chandel inscriptions require to be carefully edited. Of the three great inscriptions at Khajuráho one only has been published at length, viz., that dated 1056 Samvat, now built into the wall inside the entrance of the Vis'vanáth temple. This record was translated by Mr. Sutherland (J. A. S. B., for 1839, Vol. VIII, p. 159), but with many errors, some of which have since been corrected by General Cunningham. (Proc. A. S. B., for 1865 (1) p. 99.)

The other equally large inscriptions, viz., that dated 1058 Samvat, now built into the temple wall opposite that above mentioned, and that of Rájá Dhanga, dated 1011 Samvat, now built into the wall on the right side of the entrance to the Chatarbhuj temple, are referred to in the Archæological Report (II, pp. 423, 426), but have never been published or translated, and we understand that other inscriptions of the Chandel dynasty, concerning which nothing has yet been made public, are in General Cunningham's hands.

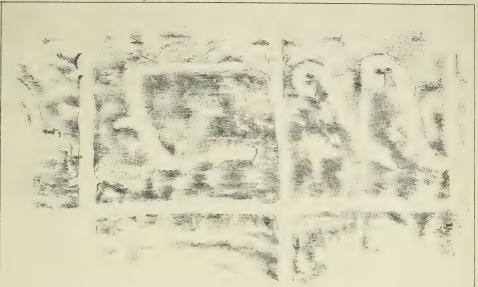
The main outlines of the Chandel chronology* have been established beyond dispute, but many details are still unsettled, and there is much difficulty in reconciling the statements of several of the inscriptions which have been given to the public in a more or less perfect form. Maisey's† inscriptions from Kalinjar were translated a long time ago, when skill in deciphering inscriptions was a rarer accomplishment than it is now, and both the text and translation of the records published by him seem to require revision by a competent scholar.

The drying up of the Kírat Ságar at Mahoba this year has disclosed a large broken Jain statue of Sumatináth with an inscription, dated "in the victorious reign of Síríman Madana Varmma Samvat 1215 Pús Sudi 10." (Plate XV).‡

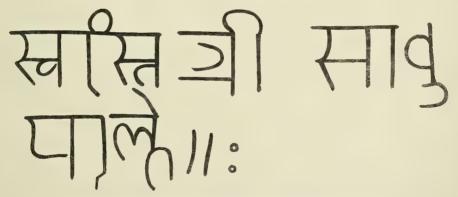
^{*} By a recent attempt to settle the genealogy (J. A. S. B., XLVII, Part I, p. 74) Dr. Rájendralála Mitra has added to the confusion. He reduces Samvat dates to the Christian era by subtracting 55 instead of 57 as usual, and he ignores the two new plates published at p. 80 of the same number of the Journal, and uses Sutherland's erroneous date of 1019 in the Dhanga inscription which was long ago corrected to 1056. He also omits all mention of Rájá Parmál or Paramárdi and of the other inscriptions of Madana Varmma, which show that the Dr.'s date of 1150 A. D. for the close of Madana Varmma's reign is much too early.

[†] J. A. S. B., XVII, Part I, 171, 313 (for 1848).

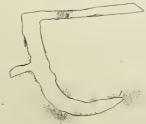
[‡] General Cunningham (Arch. Rep. II. 448) mentions an image of Sumatináth
at Mahoba, dated in 1213 Samvat.



Figures 8 and 11 in Magic Square, Jinanath Temple.



Pilgrim's Inscription, Ganthai Temple, size $\frac{1}{2}$ of orig.



Tracing of Rubbing of Figure 8 in Magic Square

V.A. Smith del.

Lith: & Printed by W. Narman q & Canata.





The form of the figure 5 in this inscription is almost the same as that employed in the Khajuráho inscription dated 1056.

Madana Varmma evidently enjoyed a long reign, as is shown by his numerous inscriptions.

At the Guláwar Kherá in the north of Mauza Chhikahra, Pargana Mahoba, a sandstone figure of Debí, found some years ago in a well, bears the following inscription (Plate XVI) in clearly cut characters—

"Thakkura Srí Gangakena Deví Káráyitam.

"Samvat 1166."

No Rájá's name is mentioned, but the year 1166 probably fell in the reign of Prithiví Varmma.

The people believe that in its palmy days Mahoba included 52 towns or bazárs, one of them being Guláwar Kherá. The latter was certainly the site of a considerable settlement, for the marks of foundations of buildings extend for about a mile. There are the ruins here of three small granite shrines, and a fourth is said to have formerly existed.

The popular tradition about the 52 bazárs perhaps indicates that Mahoba was the chief town in a *Báoni* or pargana of 52 towns and villages.

The drought this year has also brought to light a sixth life-size sandstone elephant at the ruined temple known as Madárí, (near the standing Kakra Marh temple*) in the Madan Ságar at Mahoba, where General Cunningham saw only five.

We cannot accept his suggestion that these huge statues were ever "projected in mid air" from the spires, but from their size and present position it is quite plain that the alternative which he suggests is the true one, and that they were erected in pairs at each of the three entrances to the temple.

The temple of Vis'vanáth at Khajuráho has two half life-size elephants standing near it on the ground, which may formerly have been placed at the entrance. They are decidedly inferior in execution, as well as in size, to the Mahoba elephants.

Two others, still smaller, are lying in the field near the temple dedicated to Súrya, to the entrance of which they probably served as an ornament.

On the temple of Vis'vanáth several small elephants are to be seen projecting from the angles of the roof. Originally they seem to have been

^{*} The name Kakra Marh is said to refer to the worship of Siva (Arch. Rep. II, 442). A ruined temple at Sálat about 9 miles west of Mahoba, close to which Jain images of the 12th century A. D. have been found is also known as Kakra Marh.

fourteen in number, and five are still in position, supported on flat brackets, which now look weak owing to the absence of the slender stone props which supported the outer end of the brackets, of which the inner ends rest on the boldly projecting eaves of the balcony roofs. The mortice holes into which the props were inserted are still plainly visible, and in the Kandariya Mahadeo temple, the steeple of which is also adorned with small elephants, one at least of these props is in place.

The appearance of these little elephants, when the pedestal is perfect, is not inelegant.

The subject of the construction of the Khajuráho temples has hardly been touched on in the published accounts, a few words on this topic may therefore be found of interest.

In the Hamírpur District granite alone has been used for the construction of the religious edifices, sandstone being employed only for decorative purposes. At Khajuráho on the other hand almost all the temples are built entirely of sandstone, the only exclusively granite building being the so-called Chaonsat Joginí temple.

We noticed, however, that several of the sandstone temples rest on a granite foundation, which is almost concealed from view. Judging from the number of granite pillars lying about, it is probable that at one time many buildings of the coarser material existed at Khajuráho.

The sikharas or steeples of the larger temples are very graceful in design; that of Kandariya Mahadeo is perhaps the best, but those of the Chaturbhuj and Vis'vanáth temples are almost equal to it.

The steeples, except those over the sanctum, which seem to be solid, are so constructed as to include many spaces or chambers, the intention evidently being to lighten the weight of the mass of masonry. We could find no trace of mortar in the joints of the stones with dressed outer faces which form the casing, but it has been freely used to bind together the undressed inner stones.

Access to the roof of all the chief temples is obtained through a small square hole at the top of one of the side walls of the sanctum, which can be reached by climbing over the sculptures.

The domes at Khajuráho are of course all constructed in the usual Indian way with courses of overlapping stones. The architects seem to have felt a difficulty in spanning a considerable space with a self-supporting dome of this kind, and have accordingly in several of the great cruciform temples introduced four extra columns in the middle of the mahámandapa to assist in bearing the weight. This arrangement has the advantage of giving an appearance of richness to the interior, and of giving additional facilities for a display of sculpture and carving, but is disadvantageous in

depriving the building of the massive grandeur derived from the conquest of structural difficulties by bold and simple architecture.

Two only of the Khajuráho temples have self-supporting domes. One of these is the unrestored temple of Kunwar Math, where the interior diameter of the dome is 14'.9," and the other is the temple of Mritang Mahadeo,* where the architect has succeeded in spanning, without any extraneous support, a space with a diameter of 22 feet.

The fine granite temple at Makarbaí in Pargana Mahoba has a self-supporting dome 15 '3" in diameter. With these three exceptions, we have not found any horizontal dome of more than 12 feet in diameter, built without central support.

It is somewhat remarkable that the Indian architects should not have constructed larger domes of this kind, for the horizontal dome of the celebrated 'Treasury of Atreus' at Mycenae has an internal diameter of 48 feet.†

The restorations at Khajuráho have been extensive both in the Jain and Brahmanical temples, so extensive indeed that arguments based on an examination of structural details require careful scrutiny.

The most extensive restorations of the Brahmanical temples in recent times were effected by Rájá Partáp Singh of Chhatarpur; who died in 1854 A. D. and who left directions in his will that five rupees daily should continue to be spent on the repair of the buildings, directions which have not been fully carried out.

The restorations carried out under the orders of Rájá Partáp Singh are, as a rule, judicious, and have maintained the general appearance and outlines of the buildings without attempting to add any features not included in the original design.

The steeples (sikharas) have been repaired with brick and mortar work, showing a smooth surface, which does not correspond with the carving of the old stone work, but, inasmuch as the outline has been carefully preserved, and the plaster has got darkened by age, the repairs are seldom offensive to the eye. In the temples of Kandariya Mahadeo, Vis'vanáth, and Chaturbhuj they are scarcely visible till sought for, but in the temple of the Sun and some others they are more clumsily executed.

Many of the carved stones belonging to the steeples have been built into walls and steps, though a little more care on the part of the masons might perhaps have found the places to which the stones originally belonged.

^{*} See Plate XVII for a plan of this building more detailed than that given by General Cunningham.

[†] E. Dobson's Treatise on Masonry and Stone-cutting, page 8.

The temples usually stand, each on a massive rectangular terrace, and the greater number of loose stones found lying about have been built into the walls of these terraces.

The best preserved terraces are those belonging to the temples of Chaturbhuj and the Sun. When they were complete, a parapet, the upper portion of which sloped outwards, ran round the edge of each terrace, and inside this was attached a broad stone shelf supported on small pillars.

The main pillars of the principal temples are no doubt in their original positions, but considerable irregularities occur owing to the insertion in many places of extra pillars to support cracked cross-beams.

In the smaller temples which surround and are subsidiary to the great fanes, the pillars have been much changed about, and some have been brought in from inferior buildings.

The flights of steps leading up to the entrances of the temples have been freely restored, and little attention paid to the original design, which evidently comprised only a single narrow flight of stairs leading to the door of the main building.

On close inspection it is evident that the restorations are not all of one period, but that some are old, and in some cases the building has had time to fall to ruin again since the restoration. Examples of these early restorations may be observed in the Kunwar Math and adjoining temple which were not repaired by Rájá Partáp Singh.

It is a pity that the repairs of the group of temples to which the Kunwar Math belongs (Nos. 17, 18, 29, 30 and 35 in General Cunningham's plan) are not proceeded with. These buildings lie somewhat out of the way and have consequently received little notice, but they are handsome structures and superior in ornamentation to some of the western group, though not so richly decorated as the great temples dedicated to Kandariya Mahadeo, Vis'vanáth and Chaturbhuj.

The dome of Kunwar Math is especially worth preserving on account of its large size.

The temple at Jatkarí dedicated to Vishņu is remarkable from its position with reference to the cardinal points. The entrance faces the west, and the shrine the east, which arrangement is exactly the reverse of that adopted in all the other Brahmanical temples, except the smallest shrines.

The restorations of the Brahmanical temples, although considerable, are triffing compared with those of the Jain temples, which are subjected to continuous and rather undiscriminating repair and modification.

It may we fear be thought presumptuous in us to feel hesitation in adopting a conclusion respecting the age and destination of a building which has been arrived at by so experienced a scholar as General Cunning-